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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,956	05/10/2006	David Boswell	2009_0553	8651
513	7590	01/20/2011		
WENDEROTH, LIND & PONACK, L.L.P.			EXAMINER	
1030 15th Street, N.W.,			NGUYEN, ANTHONY H	
Suite 400 East				
Washington, DC 20005-1503			ART UNIT	PAPER NUMBER
			2854	
			NOTIFICATION DATE	DELIVERY MODE
			01/20/2011	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ddalecki@wenderoth.com  
eo@wenderoth.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/578,956	BOSWELL ET AL.	
	<b>Examiner</b>	Art Unit	
	ANTHONY H. NGUYEN	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 29 October 2010.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 11,20,23,24,36,38 and 53-67 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 11,20,23,24,36,38 and 53-67 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-946)

3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 11/17/2010

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 112**

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11, 20, 23, 24, 36, 38 and 54-67 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification, as original filed, does not support the limitation "a vacuum deposited metal pigment ink" (claims 1, 64 and 66, line 7) as now claimed.

To the extent the claims are positively recited limitations, it appears that the following prior art rejection is proper.

### **Claim Rejections - 35 U.S.C. § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 20, 23, 24, 36, 38 and 53-67 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over D' Amato et al. (US 4,933,120) in view of Rick et al. (US 5,981,040).

With respect to claims 11, 23, 53, 64 and 66, D' Amato et al. teaches a method for forming a hologram having steps of applying a curable compound (liquid resin material 69) to at least a portion of a substrate 11, contacting at least a portion of the curable compound with a diffraction grating forming means 61 (Fig.3, col.5, lines 24-40), curing the curable compound via a radiation source 79, depositing a thin metallic layer on the at least a portion of the cured compound (col.6, lines 19-36).

D' Amato et al. does not clearly teach the step of depositing a metallic ink on the cured compound.

Rick et al. teaches the use of conventional metallic ink 16 which is deposited on a curable coating 14 on a substrate 12 (Fig.1, cols.3 and 4, second paragraphs).

In view of the teaching of Rick et al., it would have been obvious to one of ordinary skill in the art to modify the method of forming a hologram of D' Amato et al. by substituting the step of depositing metallic ink as taught by Rick et al. in place of the step of depositing the thin metallic layer 40 of D' Amato et al. for the purpose of providing a metallic ink for the intended printing since one of ordinary skill in the art would have been able to carry out such a substitution, and the results were reasonably predictable. Additionally, the metallic ink that has a thickness or an optical density when deposit on a substrate in the range of light transmission and permits a transmission of light passing through would be obvious through routine experimentation depending upon a substrate to be printed and the type of metallic ink to be used for printing to obtain a desired optical effects.

With respect to claims 20, 24, 56, 57, 65 and 67, the selection of a desired range of thickness of pigment particles and the optical density so that the percent of light transmission can go through would be obvious through routine experimentation depending upon the use of a substrate to be printed and the type of metallic ink to be used for printing to obtain a desired optical effects.

With respect to claim 36, the use of a lacquer which is a curable composition is conventional as exemplified by Rick et al. that teaches the curable composition which comprises lacquers (col.4, lines 19-24).

With respect to claim 38, D' Amato et al. teaches an ultraviolet radiation or light that can alternatively be used to cure the resin or curable composition (col.6, lines 13-18).

With respect to claims 54, 55 and 58, Rick et al. teaches the metallic ink which comprises metal pigment particles such as aluminum and binder (the abstract and col.3, lines 16-36).

With respect to claims 59 and 62, Rick et al. teaches the step of depositing by printing including gravure printing (col.3, lines 11-15), and Amato et al. teaches that the depositing is by printing via an anilox roll 71 and a transfer roll 73 (Fig.3 and col.5, third paragraph).

With respect to claims 60 and 61, D' Amato et al. teaches the hologram 15 (Fig.8) which is viewable from at least one surface (col.2, lines 32-41 and col.3, third paragraph).

With respect to claim 63, the use of an electron beam to cure a curable composition is well known in the art as exemplified by Rich et al. For example, Rick et al. teaches the use of electron beam to cure an electron beam-curable gloss coat (col4, lines 54-62).

### **Response to Arguments**

Applicants' arguments filed on October 29, 2010 have been fully considered but they are not persuasive.

Applicant argues that the added limitation in the claims is supported by the specification.

However, the specification does not support for the added limitation "depositing a vacuum deposited metal on at least a portion of the cured compound" as now recited in claims 11, 64 and 66. Therefore, the claims do not comply with the written description requirement under 35 U.S.C. 112, first paragraph.

Applicant argues that Rich et al. is fundamentally different from applicant's invention in that Rich et al. uses a "hard embossing" method for forming a holographic image.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, while D' Amato et al. does not clearly teach the use of metallic ink, Rich et al. is cited to show the conventional use of metallic ink which is deposited a curable coating on a substrate. D' Amato et al. clearly teaches the steps of applying a curable compound to a portion of a substrate, contacting at least a portion of the curable compound with a diffraction grating forming means, curing the curable compound and depositing a thin metallic layer on the at least a portion of the cured compound. Therefore, the combination of D' Amato et al. and Rich et al. renders obvious the claims.

Applicant argues that the applicant's invention has significant economic advantages over the conventional technology.

Note that any objective evidence must be factually supported by an appropriate affidavit or declaration to be probative value includes evidence of solution of long-felt need or the failure of others.

### **Conclusion**

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (571) 272-2169.

The examiner can normally be reached daily from 9 AM to 5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen, can be reached on (571) 272-2258.

The fax phone number for this Group is (571) 273-8300.

/Anthony H Nguyen/  
Primary Examiner, Art Unit 2854